

Anisotomini from Turkey with description of
Agathidium burckhardti sp. n.
(Coleoptera, Leiodidae)

by

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With 15 figures

ABSTRACT

Thirteen species of Anisotomini are reported from Turkey, including *Agathidium burckhardti* sp. n., which is described and *Agathidium turcicum* Reitt. which is redescribed. *Amphycillus globus* (F.), *Agathidium sahlbergi* Reitt., *A. marginatum* Sturm, *A. seminulum* (L.), *A. suturale* Reitt. and *A. atrum* (Payk.) are recorded for the first time from Turkey.

INTRODUCTION

Recently collected material of Anisotomini in north-eastern Turkey by Drs Cl. Besuchet, D. Burckhardt and I. Löbl contains 10 species including the new *Agathidium burckhardti* and 4 species previously unknown from Turkey.

Two further species were received from Prof. H. Franz, and one from the Museum of Bratislava.

With the new data and considering the recently proposed synonymy by Angelini (1988), the Turkish Anisotomini fauna comprises 34 species, composed of 1 sp. of *Amphycillus*, 2 spp. of *Anisotoma* and 31 spp. of *Agathidium*.

The specimens are deposited in the Muséum d'histoire naturelle, Geneva, the Slovenské National Muséum, Bratislava and the collections of Angelini and Franz.

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Bratislava Museum; many thanks also to Mr. Jonathan Cooter (Hereford) for his suggestions and criticisms of the manuscript.

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| | Abbreviation |
| AC | Angelini collection |
| BBL | Besuchet, Burckhardt & Löbl |
| FC | Franz collection |
| MHNG | Muséum d'histoire naturelle, Geneva |
| SNMB | Slovenské Narodné Muzeum, Bratislava |
| W/L | width to height ratio (pronotum and elytra) |
| W/L | width to length ratio (pronotum and elytra) |

RESULTS

Amphicyllis globus (F.)

Sphaeridium globus Fabricius, 1792: 78.

Amphicyllis globus, ERICHSON 1845: 93.

Material: GÜMÜSHANE, between Erzincan and Kelkit, over 30 Km N of Erzincan, 2100 m, 1 ex., 4.VI.1986, leg. BBL, in MHNG; TUNCELI, between Tunceli and Ovacik, 18 Km from Tunceli, 1100 m, 1 ex., 5.VI.1986, leg. BBL, in MHNG; KARS, Ilgardağı Geçidi, pass between Damal and Posof, 2400-2500 m, 1 ex., 13.VI.1986, leg. BBL, in AC.

Distribution: Europe, Caucasus, Turkey.

New for Turkey.

Anisotoma orbicularis (Herbst)

Tetratoma orbicularis Herbst, 1792: 91.

Anisotoma orbicularis, ILLIGER 1798: 79; ANGELINI & DE MARZO 1988: 280.

Material: ARTVIN, Pirnalli, Karkal Dağı massif, 1250 m, 1 ex., 11.VI.1986, leg. BBL, in MHNG; Cankurtaran Geçidi, 700 m, pass between Borçka and Hopa, 1 ex., 8.VI.1986, leg. BBL, in AC.

Distribution: Europe, Caucasus, Turkey and Iran.

Agathidium (Neoceleble) levantinum Ang. & Dmz.

Agathidium (Neoceleble) levantinum Angelini & De Marzo, 1983: 64.

Material: ARTVIN, 5 Km E Hopa, 100 m, 1 ex., 10.VI.1986, leg. BBL, in MHNG.

Comment. The specimen is similar to the type material in colour and punctuation (species described on the basis of a 1♂ and 1♀ from Turkey: Bolu, Omerler).

Distribution: Turkey.

Agathidium (Neoceleble) marginatum Sturm

Agathidium marginatum Sturm, 1807: 62.

Agathidium (Neoceleble) marginatum, HLISNIKOVSKY 1964: 109; ANGELINI 1986: 150; 1988: 13.

Material: GÜMÜSHANE, between Erzincan and Kelkit, over 30 Km N of Erzincan, 2100 m, 1 ex., 4.VI.1986, leg. BBL, in MHNG; KARS, north Karakut, 10 Km from village, 1900 m, 17.VI.1986, leg. BBL, in MHNG and AC.

Distribution: Europe, Caucasus, north Iran, Turkey, Syria.

New for Turkey.

Agathidium (Neocele) sahlbergi Reitt.

Agathidium sahlbergi Reitter, 1900: 218.

Agathidium (Neocele) sahlbergi, HLISNIKOVSKY 1964: 44; ANGELINI & DE MARZO 1988: 283-284; ANGELINI 1988: 14.

Agathidium (Neocele) tauricum Hlisnikovsky, 1964: 833; ANGELINI & DE MARZO 1983: 69.

Material: ANTALYA, Sapadera near Alanya, 1 ♀, leg. e coll. Franz.

Distribution: Israel, Turkey, Cyprus, Greece.

New for Turkey.

Agathidium (s. str.) atrum (Payk.)

Sphaeridium atrum Paykull, 1798: 67.

Agathidium (s. str.) atrum, HLISNIKOVSKY 1964: 157.

Material: GÜMÜSHANE, between Erzincan and Kelkit, over 30 Km N of Erzincan, 2100 m, 3 ex., 4.VI.1986, leg. BBL, in MHNG and AC.

Distribution: Europe, Caucasus, Turkey, Siberia.

New for Turkey.

Agathidium (s. str.) seminulum (L.)

Silpha seminulum Linnaeus, 1758: 360.

Agathidium (s. str.) seminulum, HLISNIKOVSKY 1964: 203; ANGELINI 1988: 17.

Material: 2 ex., leg. Merkl in SNMB.

Distribution: Europe, Turkey, Caucasus, ? Siberia (HEYDEN, 1880-81: 87, could be *A. mequignoni* Roubal).

New for Turkey.

Agathidium (s. str.) turcicum Reitt.

Figs 1, 3, 4, 7, 9, 10, 13

Agathidium turcicum Reitter, 1898: 52.

Agathidium (s. str.) turcicum, HLISNIKOVSKY 1964: 187; ANGELINI & DE MARZO 1983: 87.

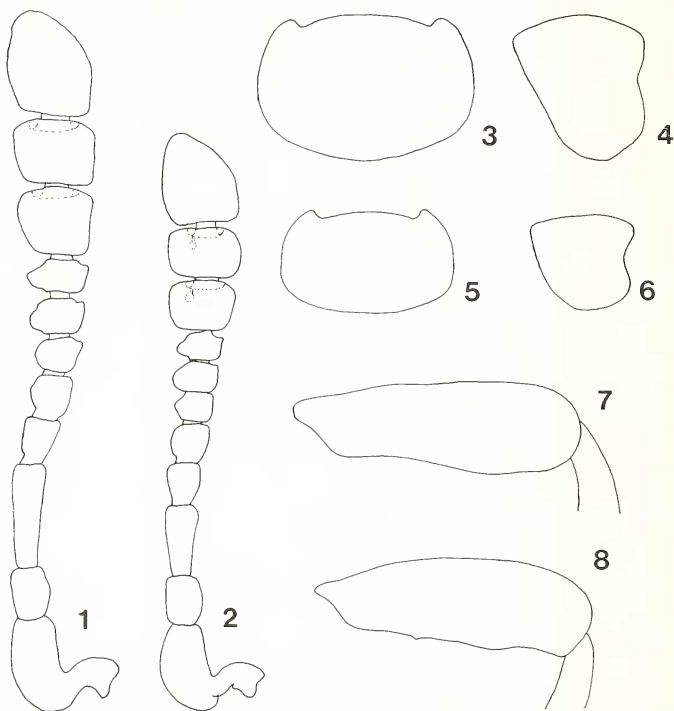
Material: ARTVIN, Cankurtan Geçidi, pass between Borçka and Hopa, 700 m, 9 ex., 8.VI.1986, leg. BBL, in MHNG and AC; 8 Km W Borçka, 350 m, 3 ex., 8.VI.1986, leg. BBL, in MHNG; crest south-west Artvin, 1900 m, 5 ex., 9.VI.1986, leg. BBL, in MHNG and AC; north Artvin, 1500 m, 4 ex., 9.VI.1986, leg. BBL, in MHNG and AC.

Types: Paratype ♂: "Turcia, Reitter", "Cotypus *Agathidium turcicum* Rtt., coll. Reitter", Hlisnikovsky's collection, National Museum, Prague. One ♀ paratype in the Zool. Staatssammlung, München, is wrongly labelled as the ♂.

Since the paper of ANGELINI & DE MARZO (1983: 87) who gave only the short original description, it was possible to examine a ♂ paratype from the Hlisnikovsky collection. This allows to give below a more detailed redescription of the species which is, contrary to REITTER (1898, *l.c.*), not closely related to *A. dentatum* Muls. & Rey.

Redescription: Length 2.90-3.45 mm (paratype ♂ 3.25 mm). Dorsum uniformly reddish-brown; venter and legs reddish-brown, clear; antennae testaceous; whole dorsum with uniform and superficial microreticulation; microscopic puncturation on head and pronotum, absent from elytra.

Head. Microreticulation superficial but visible and uniform; punctures minute and superficial, hardly visible, spaced from each other by 1-10 times their own diameter; clypeal line absent; 3rd antennal segment twice as long as 2nd and longer than 4th + 5th (Fig. 1). Hamann's organ: gutter without vesicles in both 9th and 10th antennal segments.



FIGS 1-8.

Antenna: 1, *Agathidium turcicum* Reitt.; 2, *A. burckhardti* n. sp. Dorsal and lateral outline of pronotum: 3-4, *A. turcicum* Reitt.; 5-6, *A. burckhardti* n. sp. Male metafemora: 7, *A. turcicum* Reitt.; 8, *A. burckhardti* n. sp.

Pronotum. Microreticulation and puncturation as that of head; 1.47 times as broad as head; moderately transverse ($W/L=1.7$) and convex ($W/H=1.54$); anterior margin slightly sinuate (Fig. 3), lateral outline broadly rounded (Fig. 4). Paratype σ : length 1.00 mm, width 1.70 mm, height 1.10 mm.

Elytra. Microreticulation as that on head, very few, scattered and very small punctures; slightly narrower than pronotum, as broad as long and moderately convex ($W/H = 1.72$); lateral outline with weak humeral angle; sutural striae present but superficial and within the apical third. Paratype σ : length 1.60 mm, width 1.60 mm, height 0.93 mm.

Wings absent. Mesosternum: median carina absent, lateral lines complete; metasternum: femoral lines incomplete and curved in the middle.

Legs. Male metafemora simple (Fig. 7). Tarsal formula σ 5-5-4, \varnothing 5-4-4.

Male copulatory organ (Figs 9-10). Aedeagus slender, with spiral-like proximal part, slightly narrowed apically, apex broadly rounded, ventral piece U-shaped; parameres slender, gently tapered towards apex.

Spermatheca (Fig. 13). Apical and basal parts nearly equal in length; the basal one of slightly larger diameter.

D i s c u s s i o n . *A. turcicum* Reitter differs from *A. osellai* Ang. & Dmz. and *A. caucasicum* Reitter in length ratio of the 3rd/2nd antennal segment, and in the uniform and superficial microreticulation of the whole dorsum.

Distribution: Turkey.

***Agathidium (s. str.) caucasicum* Reitt.**

Agathidium caucasicum Reitter, 1884: 111.

Agathidium (s. str.) caucasicum, HLISNIKOVSKY 1964: 152; ANGELINI & DE MARZO 1983: 74.

Material: ARTVIN, crest south-west Artvin, 1900 m, 3 ex., 9.VI.1986, leg. BBL, in MHNG and AC.

Distribution: Caucasus and Turkey.

***Agathidium (s. str.) suturale* Reitt.**

Fig. 15

Agathidium suturale Reitter, 1877: 147.

Agathidium (s. str.) suturale, HLISNIKOVSKY 1964: 206.

Material: ARTVIN, Pirnalli, Karkal Dağı massif, 1250 m, 1 ex., 11.VI.1986, leg. BBL, in MHNG; KARS, Ilgardağı Geçidi, pass between Damal and Posof, 1400-1500 m, 6 ex., 13.VI.1986, leg. BBL, in MHNG and AC.

Comment. The spermatheca of this species is figured for the first time: fig. 15. Length range of new specimens: 3.2-3.4 mm.

Distribution: Caucasus, Turkey.

New for Turkey.

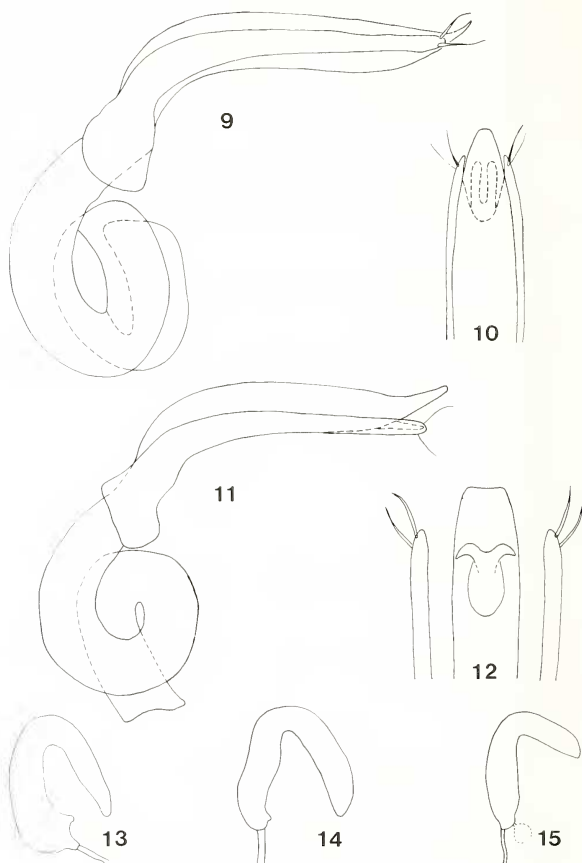
***Agathidium (s. str.) burckhardti* sp. n.**

Figs 2, 5, 6, 8, 11, 12, 14

Length 2.55-2.85 mm (holotype σ 2.60). Dorsum dark reddish-brown or whole dorsum black with reddish-brown sides of pronotum and elytra; venter and legs reddish-brown; antennae testaceous; microreticulation superficial on head and pronotum, impressed on elytra; puncturation clear and double on head and pronotum, absent on elytra.

Head. Microreticulation very superficial or in traces; puncturation double: punctures of greater size well impressed, spaced from each other by 1-5 times their own diameter, smaller punctures more superficial, spaced from each other by 1-3 times their own

diameter; clypeal line absent; 3rd antennal segment 1.5 times as long as 2nd and shorter than 4th + 5th (Fig. 2). Hamann's organ: gutter with one vesicle in both 9th and 10th antennal segments.



FIGS 9-15.

Male copulatory organ (lateral view and ventral view of apex): 9-10, *Agathidium turcicum* Reitt.; 11-12, *A. burckhardtii* n. sp. Spermatheca: 13, *A. turcicum* Reitt.; 14, *A. burckhardtii* n. sp.; 15, *A. suturale* Reitt.

Pronotum. Microreticulation and puncturation as that on head; 1.36 times as broad as head; moderately transverse ($W/L=1.66$) and moderately convex ($W/H=1.8$); anterior margin slightly sinuate (Fig. 5), lateral outline very broadly rounded (Fig. 6). Holotype: length 0.78 mm, width 1.30 mm, height 0.72 mm.

Elytra. Microreticulation well impressed, puncturation absent; just a little less broad than pronotum, nearly as broad as long ($W/L=1.04$) and moderately convex ($W/H=1.73$); lateral outline with slight humeral angle; sutural striae present, well impressed, confined to the apical third. Holotype: length 1.20 mm, width 1.25 mm, height 0.72 mm.

Wings absent. Mesosternum: median carina absent, lateral lines absent; metasternum: femoral lines complete and curved in the middle.

Legs. Male metafemora simple (Fig. 8). Tarsal formula σ 5-5-5, φ 5-4-4.

Male copulatory organ (Figs 11-12). Aedeagus slender, with spiral-like proximal part, apex bent up and a little increased, tip truncate; parameres slender, gently tapered towards apex.

Spermatheca (Fig. 14). U-shaped; apical and basal parts nearly alike in length; the former a little greater in diameter.

D i s c u s s i o n . *A. burckhardti* n. sp. is similar to *A. osellai* Ang. & Dmz. from which it differs in the double puncturation on head and pronotum and in the superficial microreticulation on head and pronotum.

Holotype σ : TURKEY, ARTVIN, Pirnalli, Karkal Dağı massif, 1600 m, 11.VI.1986, leg. BBL, in MHNG.

Paratypes: same data as holotype, 1 σ and 4 φ in MHNG, 2 σ and 1 φ in AC.

The material was collected by sifting dead leaves and rotten wood in mixed beech forest.

Distribution: Turkey.

***Agathidium (s. str.) laevigatum* Er.**

Agathidium laevigatum Erichson, 1845: 98.

Agathidium (s. str.) laevigatum, HLISNIKOVSKY 1964: 216; ANGELINI & DE MARZO 1983: 76; 1988: 286; ANGELINI 1988: 15.

Material: GÜMÜSHANE, between Erzincan and Kelkit, over 30 Km N of Erzincan, 2100 m, 34 ex., 4.VI.1986, leg. BBL, in MHNG and AC; KARS, Ilgardağı Geçidi, pass between Damal and Posof, 1400-1500 m, 1 ex., 13.VI.1986, leg. BBL, in MHNG; 16 Km south-west Göle, 1600 m, 3 ex., 16.VI.1986, leg. BBL, in MHNG and AC.

Distribution: Europe, Turkey, Caucasus, Siberia, Himalaya, north Africa.

***Agathidium (s. str.) loebli* Ang. & Dmz.**

Agathidium (s. str.) loebli Angelini & De Marzo, 1983: 81.

Material: ANTALYA, Hotel Alera, 3 ex., leg. Franz, coll. AC and FC; Sapadera near Alanya, 1 ex., leg. and coll. Franz; Murtice near Akseki, 1 ex., leg. and coll. Franz; Akseki, 1300-1500 m, 7 ex., leg. Franz, coll. AC and FC.

Distribution: Turkey.

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